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Pleurotus eryngii var. *elaeoselini,* first record from Romania

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Abstract — *Pleurotus eryngii* var. *elaeoselini*, on *Laserpitium latifolium* roots, is reported in Romania for the first time. A description and illustrations of this variety are provided.

Key words — taxonomy, *Pleurotaceae*, *Apiaceae*

Introduction

Pleurotus eryngii var. *elaeoselini* was described by Venturella et al. (2000) from Sicily (Italy), growing on *Elaeoselinum asclepium* (L.) Bertol. subsp. *asclepium*. Subsequently, Venturella (2002) reported the variety from Spain, associated with other plants in *Apiaceae: Thapsia villosa* L. and *Elaeoselinum gummiferum* (Desf.) Tutin. Unpublished data from one co-author (G. Venturella) widen the distribution (i.e. France, Switzerland, Malta, Slovenia and Ukraine) of this taxon (Fig. 1). In Romania, data on the *P. eryngii* species complex are scarce, and only *P. eryngii* (DC.) Quél. on *Eryngium* spp. roots has been reported (Sălăgeanu & Sălăgeanu 1985). Identification of *P. eryngii* var. *elaeoselini* in Romania, collected on *Laserpitium latifolium* roots, adds new data to the existing knowledge of this fungus. *Laserpitium latifolium* is also known as a host for *P. eryngii* var. *eryngii* (Zervakis & Balis 1996). Zervakis et al. (2001), discussing the occurrence of *Pleurotus nebrodensis* (Inzenga) Quél. on *L. latifolium*, stated that *P. nebrodensis* should be associated only with *Cachrys ferulacea* (L.) Calest.

Materials & methods

The *P. eryngii* var. *elaeoselini* basidiomata, collected during 2006–11 in the Stânişoarei Mountains (Eastern Carpathians), Romania, were described and photographed in the habitat. The material was preserved by drying and deposited in the Herbarium of the Alexandru Ioan Cuza University of Iaşi (I). Duplicates of I-137264 and I-137266 are kept

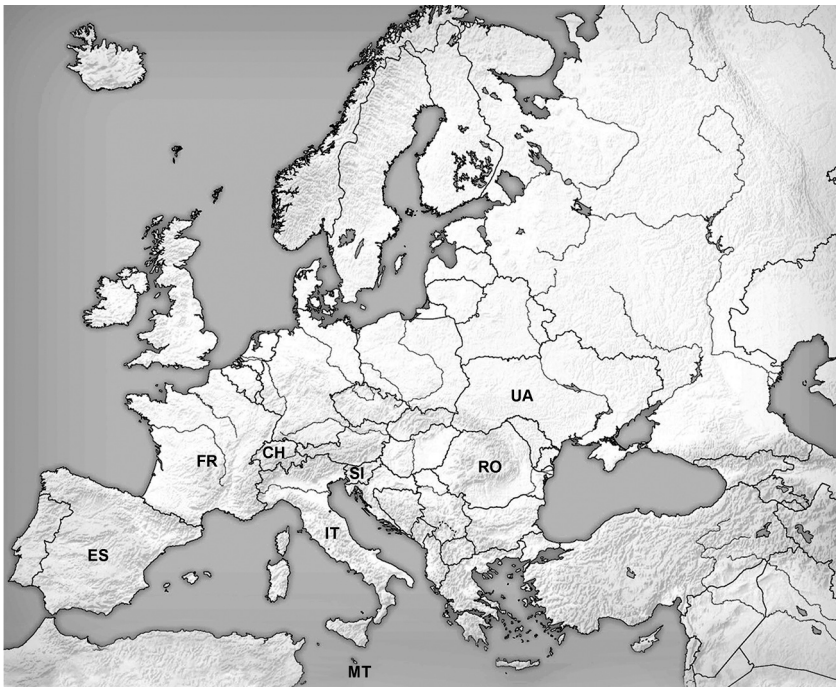

Figure 1. Distribution of *Pleurotus eryngii* var. *elaeoselini* in Europe. ES (Spain), FR (France), CH (Switzerland), IT (Italy), MT (Malta), SI (Slovenia), RO (Romania), UA (Ukraine).

in Herbarium Mediterraneum Panormitanum (PAL). For microscopical examination, sections were mounted in 5% KOH and Congo red solution. The species was monitored during annual field trips in 2007–11.

Taxonomy

Pleurotus eryngii* var. *elaeoselini Venturella, Zervakis & La Rocca, Mycotaxon 76: 420 (2000) Fig. 2

Basidiomata fleshy, 40–110 mm high. Pileus 40–120 mm in diameter, hemispherical to convex when young, low convex to depressed when mature; whitish, white-cream to light beige, with alutaceous tones; smooth, often lacerated in small appressed areolae; margin deeply involute in young basidiomata, then straight, sometimes lobate. Lamellae deeply decurrent, arcuate, up to 10 mm broad, in young basidiomata with evident anastomoses on the stipe, whitish to light cream, sometimes grayish-white in young basidiomata, edge entire, concolorous. Spore deposit white.

Stipe 25–85 × 6–20 mm, central to eccentric, concolorous with the pileus, filled and firm, irregularly cylindrical, straight to slightly curved, base attenuate

Figure 2. *Pleurotus eryngii* var. *elaeoselini* basidiomata in habitat (Photo: V.C. Chinan).

and sometimes radicating, lightly pruinose in the young basidiomata, then smooth, glabrous. Context compact, fibrous, white in pileus and stipe, odor and taste fungoid.

Basidia 4-spored, 34–48 × 8–10 µm, sterigmata 4–5 µm. Basidiospores 8–12(–13) × 4–5.5 µm, cylindrical-ellipsoid, apiculate, smooth, hyaline; cheilocystidia 40–60 × 8–12 µm, club-shaped.

Habitat/substrate/phenology. Mountain meadow (alt. 620–750 m), calcareous soil, on *Laserpitium latifolium* roots, single or in groups, autumn (September–October).

Specimens examined: **ROMANIA**, **Eastern Carpathians**: Stânişoarei Mountains, Neamț County, near Potoci village, mountain meadow, GPS: 46°56′14.55″N 26°07′43.86″E, alt. 620–750 m, on *Laserpitium latifolium* L. roots (*Apiaceae*), 6 Oct. 2006, 10 Oct. 2007, 19 Oct. 2008, 17 Sept. 2010, 13 Oct. 2011, coll. V. Chinan (I 137262; I 137263; I 137264, PAL 001/ROM; I 137265; I 137266, PAL 002/ROM).

Discussion

Pleurotus eryngii var. *elaeoselini* is a rare taxon in Europe. In Romania it was found on *L. latifolium* roots in a meadow in the Stânişoarei Mountains (Eastern Carpathians). This is the first record of this variety for Romania and the Carpathian Mountains. Annual field trips, carried out between 2007 and 2011, confirmed its presence in the same place every year from September to October. Although it was first found in Italy only on *E. asclepium* subsp. *asclepium* (Venturella et al. 2000), data from Spain (Venturella 2002) show that

this variety is linked to more than one species in the *Apiaceae*. The Romanian collections of *P. eryngii* var. *elaeoselini* on *L. latifolium* confirm this conclusion.

Zervakis et al. (2001) previously discussed the presence of *Pleurotus* on *Laserpitium* spp., noting that *Pleurotus* strains growing on *Laserpitium* spp. in central Europe and northern Italy show identical microscopic characteristics with *P. eryngii* var. *elaeoselini* and that these differ from *P. nebrodensis.*

The macroscopic and microscopic attributes of the Romanian specimens fit the description by Venturella et al. (2000). Confusion with *P. nebrodensis* is excluded, as its host plant, *C. ferulacea,* is not known in Romania.

The Romanian population of *P. eryngii* var. *elaeoselini* apparently fruits only in autumn, during September and October. In Italy, it is reported fruiting in both autumn and spring (Venturella et al. 2000), while in Spain the variety has been found only in spring (Venturella 2002).

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